

TRAIN AND TRAM ZONE ACTIVITY CENTRES PROGRAM

LOCAL VARIATION TESTING TRANCHE 2



BLACKBURN TO MITCHAM

Project and report	Train and Tram Zone Activity Centres Program - Local Variation Testing - Blackburn to Mitcham	
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Report contact	Lauren Clerey	
This report is considered a draft unless signed by a Director or Principal	Approved by: Dean Thornton 	

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Introduction and background

Project overview

Across Victoria, housing affordability and accessibility remain key challenges, with many Victorians unable to secure a home close to the people, services, and opportunities that support their daily lives. The Department of Transport and Planning (DTP) recognises the need for coordinated and timely action to support a sustainable future in which all Victorians have access to suitable housing options.

As part of the Victorian Government’s Housing Statement, the Activity Centre program seeks to deliver more homes in and around activity centres, enabling more Victorians to live closer to jobs, services, public transport and green, open space.

The Train and Tram Zone Activity Centres Program presents a significant opportunity to accommodate housing growth within Melbourne’s established urban areas, particularly through the delivery of more compact housing forms such as apartments and multi-dwelling developments. However, inconsistencies in the planning provisions currently applied across these centres limit the ability to deliver additional housing in well-located areas.

To address this, DTP is proposing updates to planning controls in and around 60 train and tram zone activity centres. These changes are intended to support the delivery of over 300,000 new homes by 2051, located close to Melbourne’s public transport network, employment hubs, and essential services.

To support consistent and high-quality development outcomes, DTP has developed a suite of global built form controls, that provide a clear and replicable framework to guide future development.

DTP has prepared Activity Centre Plans for an initial 10 activity centres, forming part of the Activity Centre Program amendment package along with new planning provisions. These plans consolidate the strategic work undertaken to establish updated planning controls for activity centres.

In late 2024, the Premier and the Minister for Planning announced the expansion of the Activity Centres Program to include another 50 train and tram zone activity centres with good access to public transport, jobs and services. These locations were selected based on analysis of transport capacity, market viability, access to jobs and services, and environmental considerations. The development of new planning controls for these 50 activity centres is anticipated to be completed by 2026.

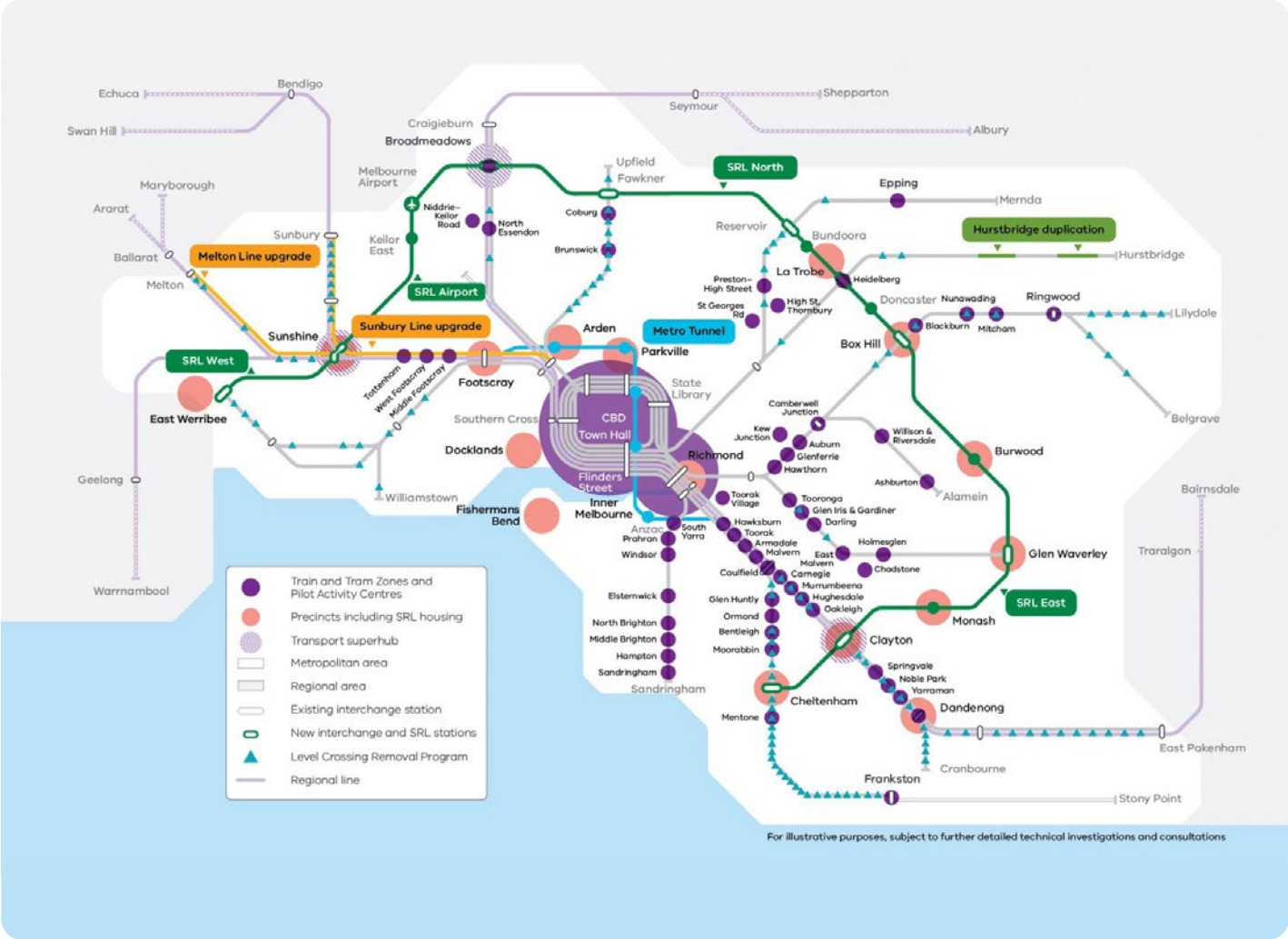


Figure 1. Map of train and tram zone activity centres

Introduction and background

Project purpose

The work presented in this report was undertaken to support DTP's application of the Global Built Form Controls (GBFC) across 48 activity centres, delivered in Tranche 1 and Tranche 2. The primary objective is to identify place-specific local variations that better respond to the unique conditions, opportunities and constraints of individual centres.

The Train and Tram Zone Activity Centre Program – Local Variations Testing Project seeks to test and refine the application of the GBFC to ensure they deliver appropriate outcomes across diverse urban contexts. In particular, the project focuses on identifying circumstances where sensitive interfaces, open spaces, key streetscapes, or planned public realm upgrades may warrant adjustments to overall building heights, street wall heights, setbacks, or built form typologies.

The scope of this work included:

- reviewing the Global Built Form Controls including urban design guidelines for both Tranche 1 and Tranche 2 activity centres;
- assessing site specific opportunities and constraints identified through the Foundational Analysis, Traditional Owner, and other community and stakeholder engagement outcomes;
- undertaking built form testing to identify place-specific impacts of the Global Built Form Controls in activity centre cores to inform potential local variations, and;
- providing clear and concise recommendations where place specific adjustments are required to achieve desired urban design and amenity outcomes.

Project objectives

A key objective of the Train and Tram Zone Activity Centres Program is to introduce a consistent set of built form standards that support growth, while ensuring development responds and contributes positively to its local context.

Local Variations provide a mechanism to apply these standards in a balanced and context-responsive manner.

The local variations framework seeks to achieve the following outcomes:

- A balanced growth outcome, ensuring development supports sustainable expansion while maintaining liveability.
- A reasonable level of sun access, protecting sunlight to parks, public spaces, and key streets to enhance public amenity.
- A balanced approach to amenity protection, managing change at sensitive residential interfaces to safeguard amenity for existing and future residents.
- Protection of key view lines, maintaining important visual connections to landscapes and local landmarks.
- Any other matters captured in Community, Council, State Government and Traditional Owner feedback.

These outcomes are supported by a set of urban design principles that guide practical implementation (refer to Figure 2).

Collectively, the objectives and principles establish a framework that balances growth with amenity, heritage, and environmental quality, supporting sustainable and high-quality urban outcomes.

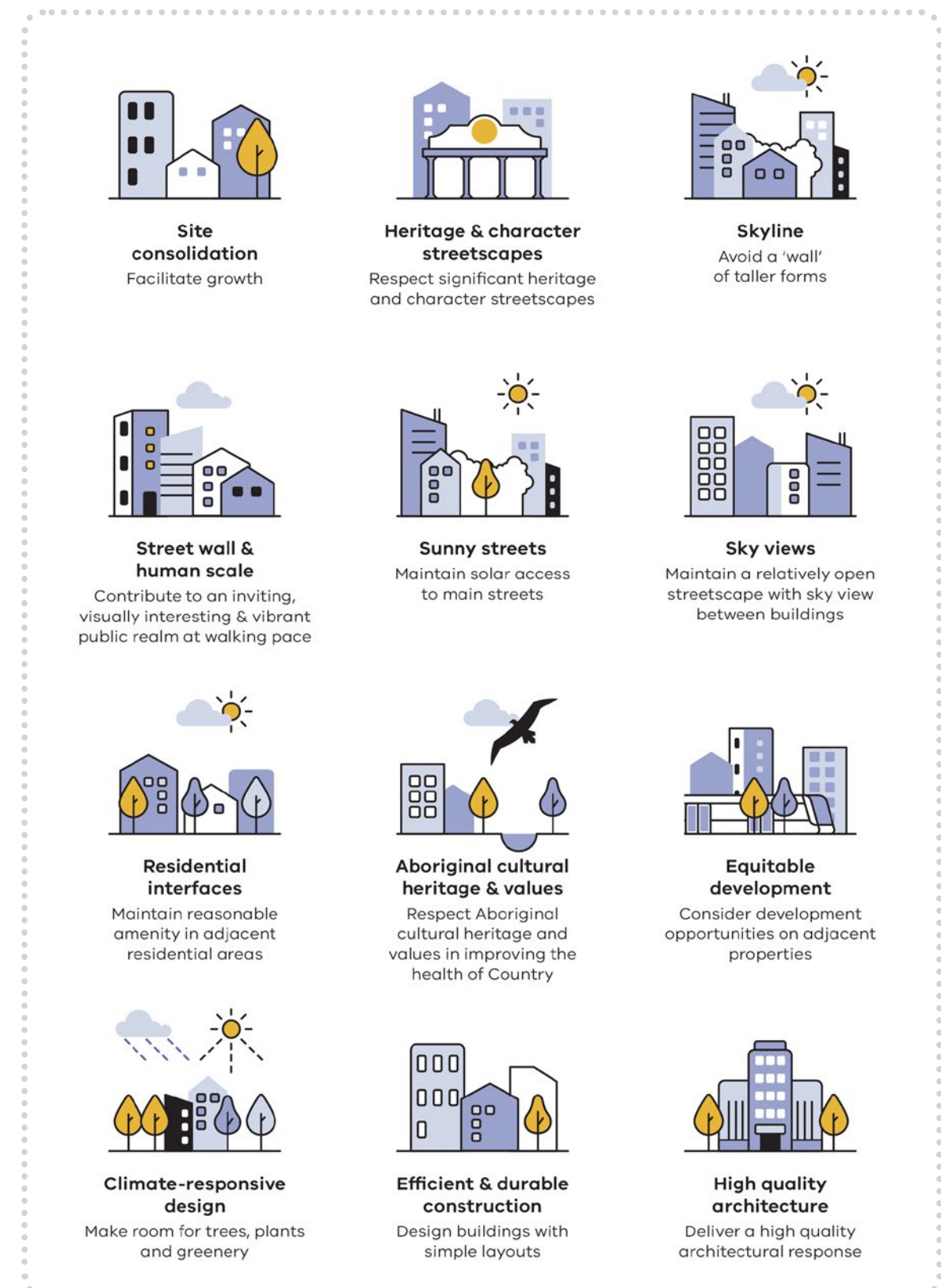


Figure 2. Urban Design Principles from the 'Train and Tram Zone Activity Centre Program Explainer, 2026'

Introduction and background

Project methodology

The Local Variations Testing Project focuses on assessing how effectively the Global Built Form Controls can achieve a balanced outcome between facilitating housing growth and protecting existing public and private realm amenity within the core areas of the activity centres.

The scope for this Local Variations testing included:

- assessing sun access to parks and key streets, ensuring adequate daylight and comfort in public spaces;
- managing sensitive interfaces to protect residential amenity; and
- protection of key views and landmarks to preserve important local and site-specific features.

Where the application of the global built form controls does not fully achieve the standards established under the Activity Centres Program, local variations are proposed. These variations are tailored to the specific conditions of each centre and are intended to ensure development outcomes remain balanced and contextually appropriate.

For the purposes of built form testing, the Global Built Form Controls have been modelled to reflect the maximum permissible height, street wall height and minimum setback requirements.

The resulting blocks represent the maximum developable envelope within which future development may occur. These three-dimensional envelopes are not representations of actual or proposed buildings, nor do they reflect a final built outcome.

Development occurring within this envelope would be subject to further design resolution and is expected to incorporate articulation and refinement, including variations in siting, massing, building form, façade treatment and materiality.

The diagrams below illustrate how a planning envelope may translate into a more articulated and responsive built form.

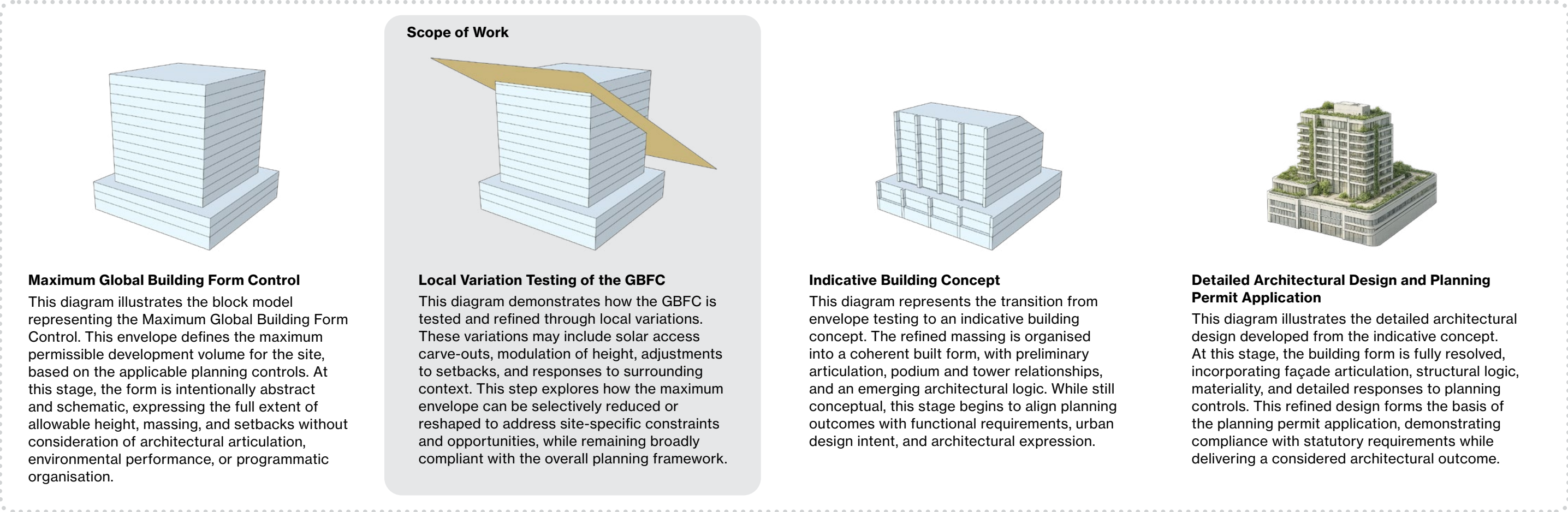


Figure 3. Holistic Project Process

Global Built Form Controls

The Victorian Government's Train and Tram Zone Activity Centres Program (TTZACP) introduces a suite of consistent built form standards to support housing growth, while maintaining amenity, character, and high-quality public spaces across selected Melbourne activity centres. These global built form controls are provided as part of the Train and Tram Zone Activity Centres Program Explainer, 2026.

This report explains how a consistent, typology-based approach to built form controls has been developed. It responds to fragmented planning controls and approval uncertainty that have limited housing delivery in established centres. The standards apply where recent strategic plans are absent.

The approach is built around three key components:

- 1. Activity Centre Classification (Housing Growth Framework)* - centres are classified (Type 1–4) based on access to jobs, services, and public transport. Higher-order centres are expected to accommodate greater height and density, directing growth to the most accessible locations.
- 2. Urban Design Principles* - twelve principles guide all standards, including urban consolidation, respect for heritage, human-scaled streets, sunlight access, skyline management, high-quality architecture, and sensitive transitions to residential areas.
- 3. Built Form Typologies* - five typologies (e.g. Heritage Main Street Core, Non-Heritage Main Street Core, Fringe, Limited Sensitivities, Large Opportunity Sites,) define expected development outcomes based on lot size, zoning, and context. These typologies shape where taller buildings are appropriate and how development should transition to surrounding areas.

Built Form Standards

The report sets out detailed standards that control:

- Building height (minimums and maximums linked to centre type and typology).
- Street wall/podium heights to maintain human-scale streets.
- Upper-level setbacks to reduce visual bulk and overshadowing.
- Side and rear setbacks to protect light, privacy, and amenity.
- Sun access to streets, parks, and open spaces.
- Wind impacts to ensure pedestrian comfort.
- Active frontages to support vibrant, safe streets.

Large Opportunity Sites and Shopping Centres

Sites over 5,000m² are recognised as requiring a more tailored and coordinated approach due to their scale, complexity and potential influence on the wider activity centre. Additional discretionary controls may apply, including requirements for master planning, building separation, internal pedestrian links, and integrated public realm outcomes such as deep soil zones and canopy tree planting.

While large opportunity sites often provide the greatest capacity to deliver these outcomes at scale, certain standards (such as deep soil, landscape setbacks, canopy tree provision and pedestrian permeability) also apply to other typologies where site size, configuration or development form allows. This ensures consistent climate resilience, public realm quality and urban greening outcomes across activity centre cores, while allowing flexibility to respond to site-specific conditions.

This approach supports development that contributes positively to the broader activity centre structure, enhances the public realm, and delivers long-term environmental and community benefits..

Local Variations

While the standards are largely consistent, place-specific variations are applied where needed to respond to local character, infrastructure constraints (e.g. airport height limits), landscape opportunities, or existing subdivision patterns. Each activity centre includes a tailored set of adjustments that do not compromise the overarching urban design principles.

In order to achieve the project objectives and translate the Global Built Form Controls (GBFC) into place-responsive planning outcomes, the GBFC have been subject to targeted Local Variation testing.

This testing assessed how the maximum envelope performs when refined to respond to local conditions, including sensitive interfaces, public realm considerations, infrastructure capacity and policy requirements. As part of this process, key view lines identified in Council policy and strategic documents were tested and considered, alongside solar access, street scale and transition outcomes.

Global Built Form Controls

Types	Sun Access Standards	Mandatory or Discretionary	Deemed to Comply
SUN ACCESS STANDARDS - STREETS			
Boulevards	Maintain sun access beyond the centreline of the boulevard between 10am and 2pm on 22 September.	Discretionary	Yes
Key pedestrian streets	Maintain sun access to the opposite footpath measured at least 5m from the property boundary between 10am and 2pm on 22 September.	Discretionary	Yes
All other streets	Buildings should not create additional overshadowing of opposite footpaths between 10am and 2pm on 22 September. – This sun access standard does not apply to buildings that meet the relevant discretionary deemed to comply standards.	Discretionary	No
SUN ACCESS STANDARDS - PARKS & OPEN SPACES			
High protection	No additional overshadowing between 10am and 3pm on 21 June.	Mandatory	
Moderate protection	No additional overshadowing beyond the theoretical shadow cast by the maximum street wall or front wall height specified in this Schedule between 10am and 3pm on 21 June.	Mandatory	
All public parks and public open spaces <i>(including proposed public open space)</i>	Buildings should not create additional overshadowing beyond shadow cast by the existing buildings between 10am and 3pm on 21 June. – This sun access standard does not apply to buildings that meet the relevant discretionary deemed to comply standards.	Discretionary	

Figure 4. Mandatory and Discretionary Sun Access Standards

Building Height	Minimum Setback to boundary line <i>(if Boundary is to the south side of the building)</i>
Up to 11 metres	6 metres
Above 11 metres and up to 21 metres	12 metres
Above 21 metres	15 metres

Figure 5. Sensitive Interface Standards

BLACKBURN STATION TRAIN AND TRAM ZONE

1

Local Variations Summary Plan

Blackburn Station Train and Tram Zone

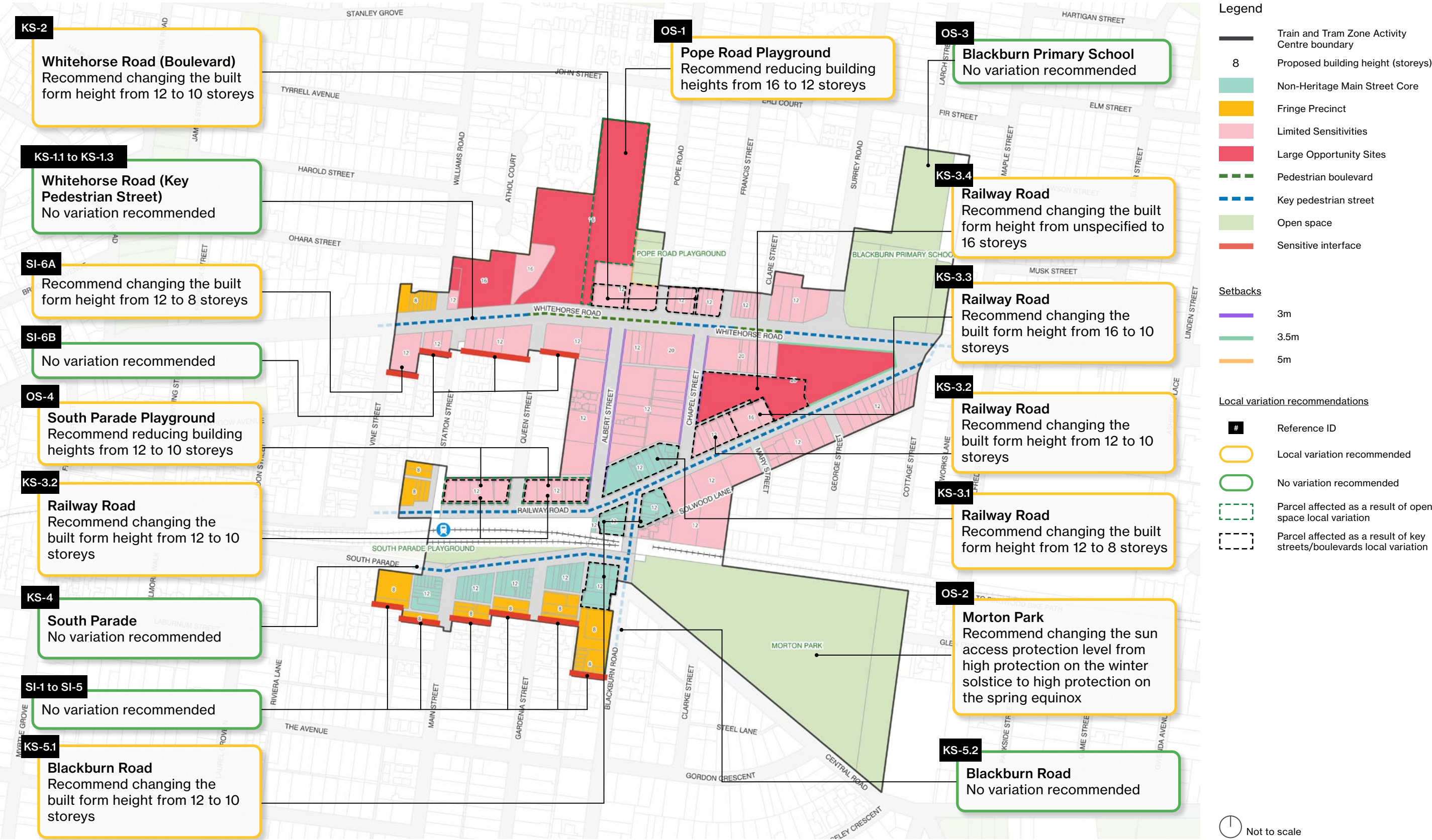


Table of Recommendations

Blackburn Station Train and Tram Zone

Local variations rationale

Blackburn Station is characterised by a variety of key pedestrian streets and open spaces. Several local variations, primarily focused on reducing building heights, are proposed to ensure an appropriate balance between growth outcomes and amenity protection of these places.

Control investigated	Ref.	Site tested	Description of issue	Recommended local variation	Details of recommendation	What does the local variation achieve?	Technical assessment findings
Sensitive interfaces	SI-6A	102-104 Whitehorse Road	The proposed controls do not adequately manage amenity along the sensitive interface.	Reduce building height	Reduce maximum building height from 12 storeys to 8 storeys.	A balanced approach of amenity protection at the sensitive residential interfaces	Part A1 SI-6A
	KS-2	Whitehorse Road (Boulevard)	The proposed building heights do not meet the sun access standard for Boulevards.	Reduce building height	Reduce maximum building height from 12 storeys to 10 storeys.	A balanced growth outcome and a reasonable level of sun access to key streets	Part A1 KS-2
Key streets	KS-3.1	Railway Road	The proposed building heights do not meet the sun access standard for Key Pedestrian Streets.	Reduce building height	Reduce maximum building height from 12 storeys to 8 storeys.	A balanced growth outcome and a reasonable level of sun access to key streets	Part A1 KS-3.1
	KS-3.2	Railway Road	The proposed building heights do not meet the sun access standard for Key Pedestrian Streets.	Reduce building height	Reduce maximum building height from 12 storeys to 10 storeys.	A balanced growth outcome and a reasonable level of sun access to key streets	Part A1 KS-3.2
	KS-3.3	Railway Road	The proposed building heights do not meet the sun access standard for Key Pedestrian Streets.	Reduce building height	Reduce maximum building height from 16 storeys to 10 storeys.	A balanced growth outcome and a reasonable level of sun access to key streets	Part A1 KS-3.3
	KS-3.4	Railway Road	The proposed building heights do not meet the sun access standard for Key Pedestrian Streets.	Reduce building height	Reduce maximum building height from unspecified to 16 storeys.	A balanced growth outcome and a reasonable level of sun access to key streets	Part A1 KS-3.4
	KS-5.1	Blackburn Road	The proposed building heights do not meet the sun access standard for Key Pedestrian Streets.	Reduce building height	Reduce maximum building height from 12 storeys to 10 storeys.	A balanced growth outcome and a reasonable level of sun access to key streets	Part A1 KS-5.1

Table of Recommendations

Blackburn Station Train and Tram Zone

Control investigated	Ref.	Site tested	Description of issue	Recommended local variation	Details of recommendation	What does the local variation achieve?	Technical assessment findings
Open spaces	OS-1	Pope Street Playground	The proposed building heights of 16 storeys cannot be achieved where high protection sun access controls are applied to the open space. Although 16 storeys can be achieved on the rear portion of the site, a 16-storey outcome would result in significant visual bulk to adjacent residential sensitive interfaces.	Reduce building heights	Reduce building heights of 127 Whitehorse Road from 16 to 12 storeys.	A balanced growth outcome and a reasonable level of sun access to parks and key streets.	Part A1 OS-1
	OS-2	Morton Park	The proposed high protection sun access control significantly constrains the development potential of properties surrounding the open space, failing to achieve a balanced outcome between growth and amenity.	Change level of sun access control	Change the sun access protection level from high protection on the winter solstice to high protection on the spring equinox.	A balanced growth outcome and a reasonable level of sun access to parks and key streets.	Part A2 OS-2
	OS-4	South Parade Playground	The proposed building heights of 12 storeys cannot be achieved where moderate protection sun access controls are applied to the open space. A 12-storey outcome would result in significant overshadowing of the playground.	Reduce building heights	Reduce building heights from 12 to 10 storeys.	A balanced growth outcome and a reasonable level of sun access to parks and key streets.	Part A1 OS-4

NUNAWADING STATION TRAIN AND TRAM ZONE

2

Local Variations Summary Plan

Nunawading Station Train and Tram Zone

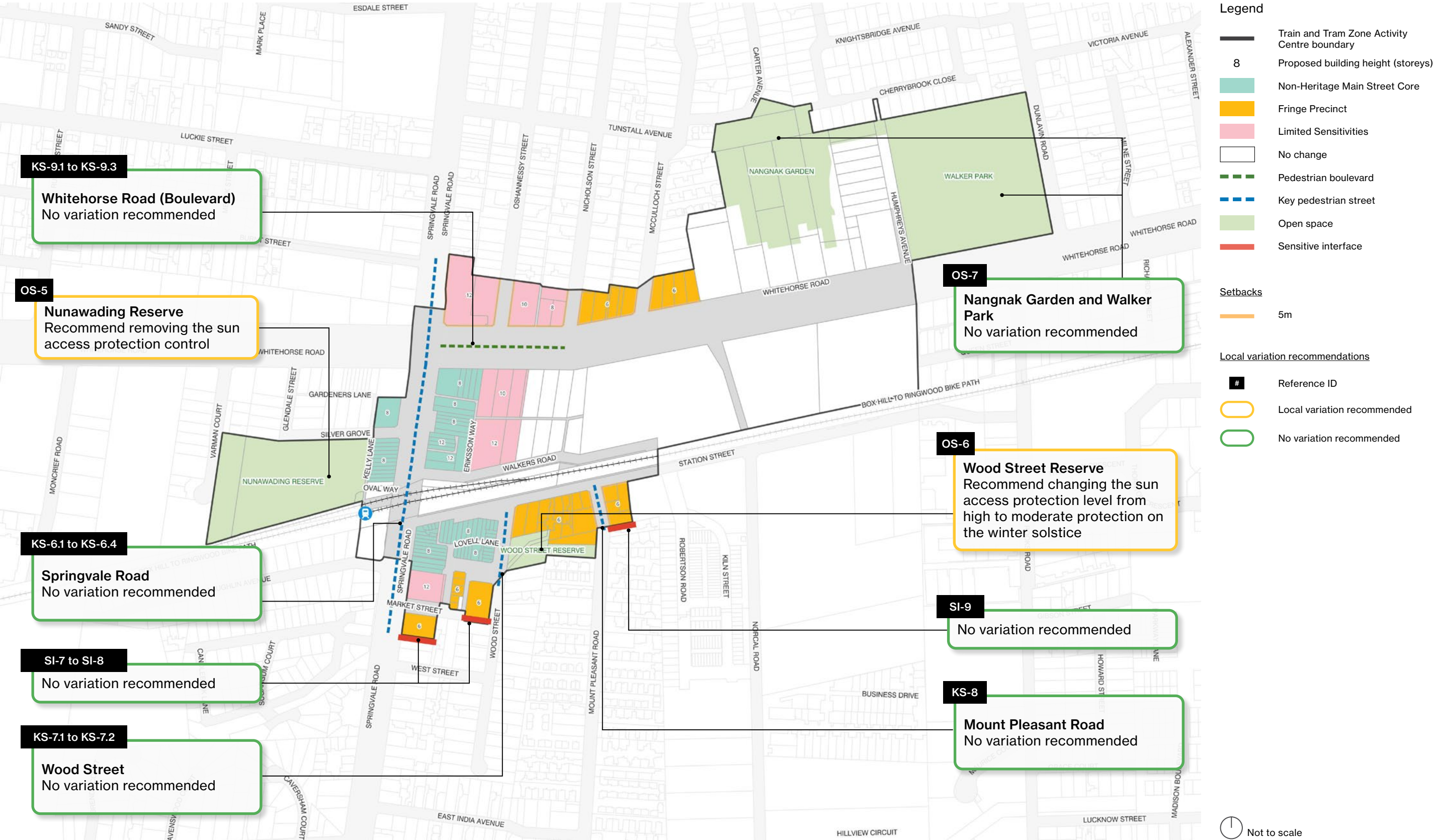


Table of Recommendations

Nunawading Station Train and Tram Zone

Local variations rationale

Local variations at Nunawading Station are proposed to ensure that sun access protection controls for open spaces respond to the existing context and achieve an appropriate balance between growth outcomes and amenity protection.

Control investigated	Ref.	Site tested	Description of issue	Recommended local variation	Details of recommendation	What does the local variation achieve?	Technical assessment findings
Open spaces	OS-5	Nunawading Reserve	The eastern portion of the reserve is not classified by Council as public open space. The western portion, which is classified as public open space, is not affected by the proposed built form typologies or building heights.	Remove control	Remove the sun access control from Nunawading Reserve.	Removes a control that is redundant, not achieving its intended purpose in this specific context.	Part A2 OS-5
	OS-6	Wood Street Reserve	The proposed high protection sun access control significantly constrains the development potential of properties surrounding the open space, failing to achieve a balanced outcome between growth and amenity.	Change level of sun access control	Change the sun access protection level from high to moderate protection on the winter solstice.	A balanced growth outcome and a reasonable level of sun access to parks and key streets.	Part A2 OS-6

MITCHAM STATION TRAIN AND TRAM ZONE

3

Local Variations Summary Plan

Mitcham Station Train and Tram Zone

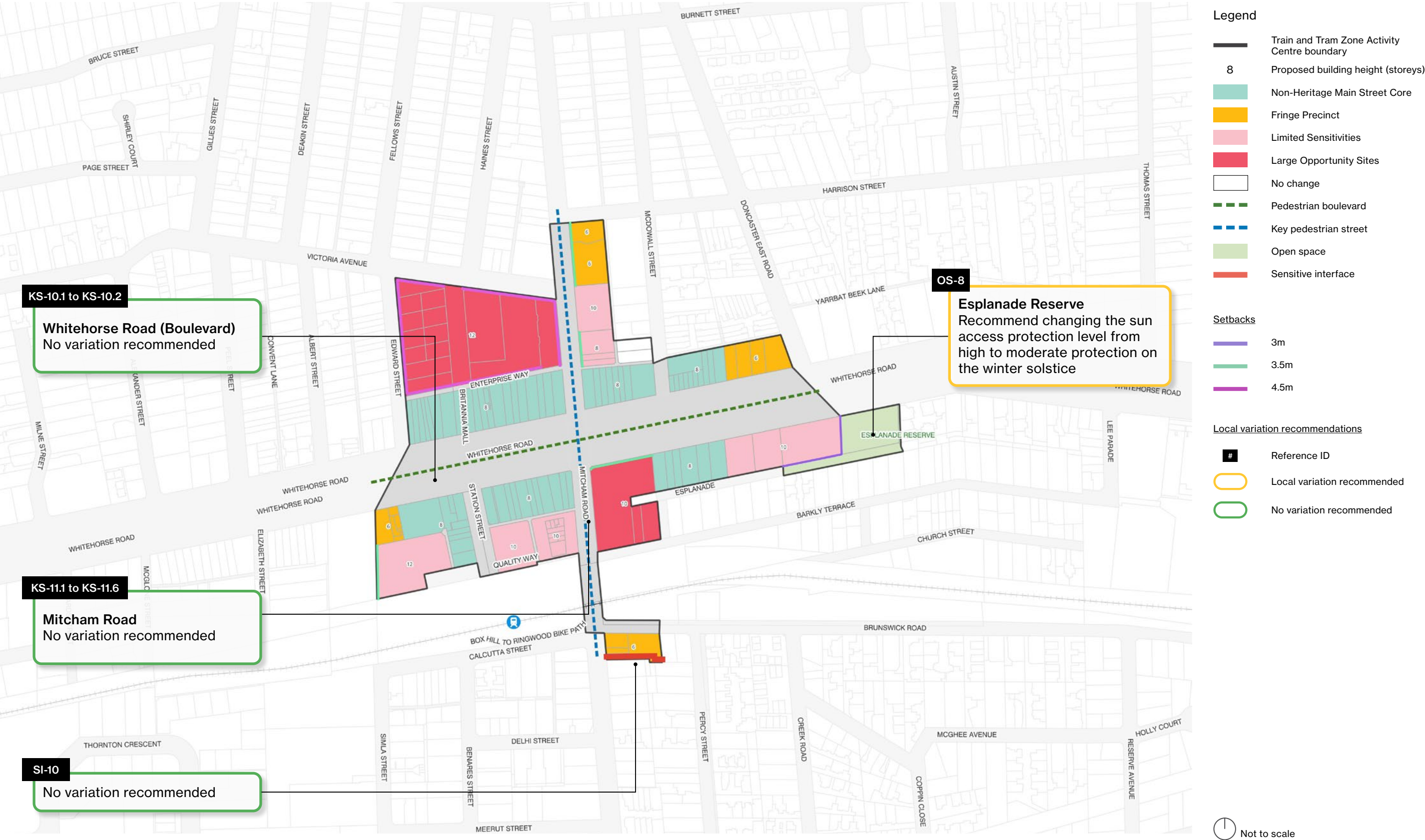


Table of Recommendations

Mitcham Station Train and Tram Zone

Local variations rationale

A single local variation is proposed for Mitcham Station to ensure the sun access protection control for the Esplanade Reserve is responsive to its existing context and achieves an appropriate balance between growth outcomes and amenity protection.

Control investigated	Ref.	Site tested	Description of issue	Recommended local variation	Details of recommendation	What does the local variation achieve?	Technical assessment findings
Open spaces	OS-8	Esplanade Reserve	The proposed high protection sun access control significantly constrains the development potential of properties surrounding the open space, failing to achieve a balanced outcome between growth and amenity.	Change level of sun access control	Change the sun access protection level from high to moderate protection on the winter solstice.	A balanced growth outcome and a reasonable level of sun access to parks and key streets.	Part A3 OS-8

APPENDIX

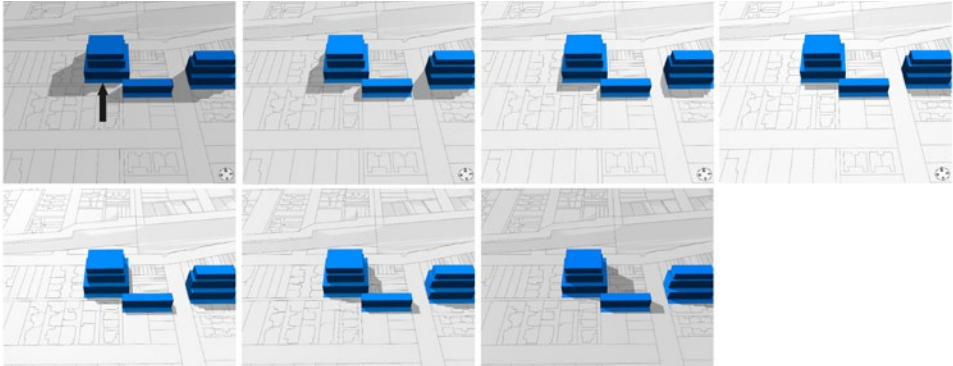
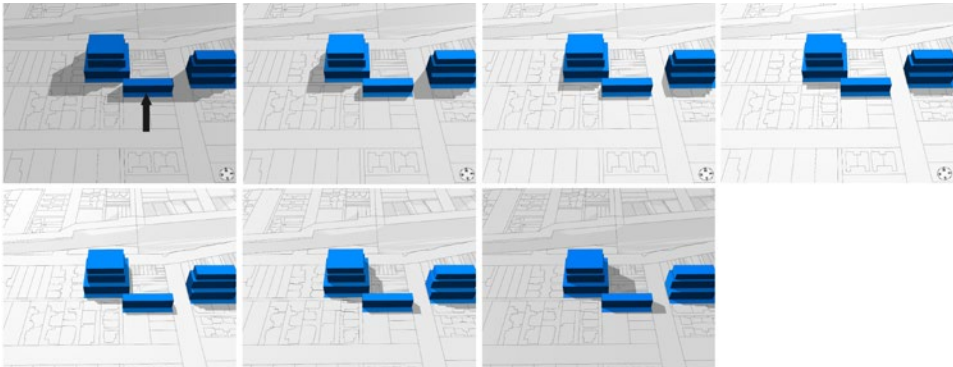
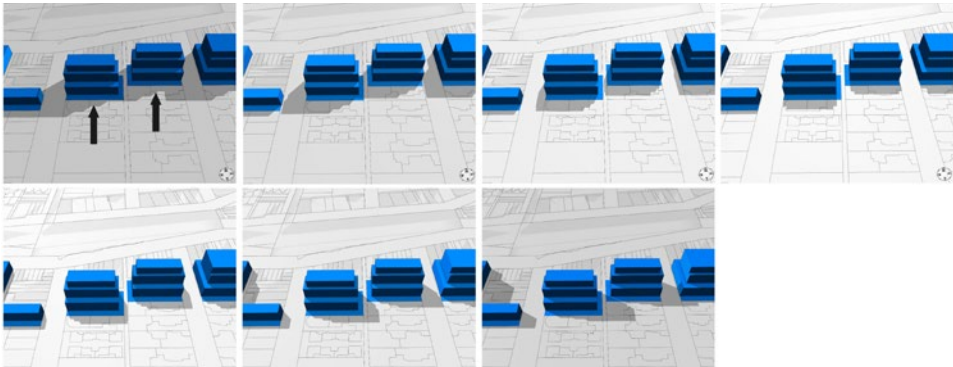
TECHNICAL ASSESSMENTS

The Appendices present the outcomes of high-level built form testing prepared to inform strategic planning and urban design considerations. The material forms part of an iterative testing process and is intended to support strategic analysis only. The following caveats should therefore be carefully considered when interpreting the information presented:

- The built form testing examines a range of development scenarios and time periods. For clarity in reporting, the appendices focus on scenarios representing the greatest impact (upper-bound conditions). Accordingly, in several instances testing has been reported only at 10am and/or 2pm for key streets, and 10am and/or 3pm for open spaces.
- These scenarios are used to identify where potential impacts may be greatest and where policy or design controls may require further consideration. Accordingly, the images, diagrams, and quantitative outputs should not be interpreted as representative of typical, likely, or preferred development outcomes.
- The testing is indicative and strategic in nature. It does not predetermine, approve, or confer any development outcome or entitlement, nor does it replace the need for detailed site-specific design, assessment, or statutory approval processes. Any future development proposal will be subject to comprehensive assessment against the planning controls and policies applicable at the time of consideration.
- Environmental performance measures, including solar access and overshadowing, have been assessed at a high level using standard modeling assumptions. Actual outcomes may vary depending on detailed building design, orientation, materials, and surrounding development context.
- The built form testing outputs should be understood as illustrative only. Images, diagrams, and metrics do not constitute development entitlements, fixed outcomes, or commitments by the planning authority or project team.
- The built form testing represents a snapshot in time based on the data, policy settings, and constraints available at the time of preparation. Subsequent changes to planning frameworks, infrastructure provision, land use patterns, or surrounding development may affect the relevance or applicability of the findings.
- Some maximum building heights, particularly on smaller lots, are only achievable through site consolidation. Accordingly, the 3D models used for testing incorporate an assumption of theoretical lot consolidation (two or more adjoining lots) to test the maximum potential building envelope. In practice, individual sites may not be capable of achieving the maximum heights envisaged by the built form standards, particularly where side and rear setback requirements apply.

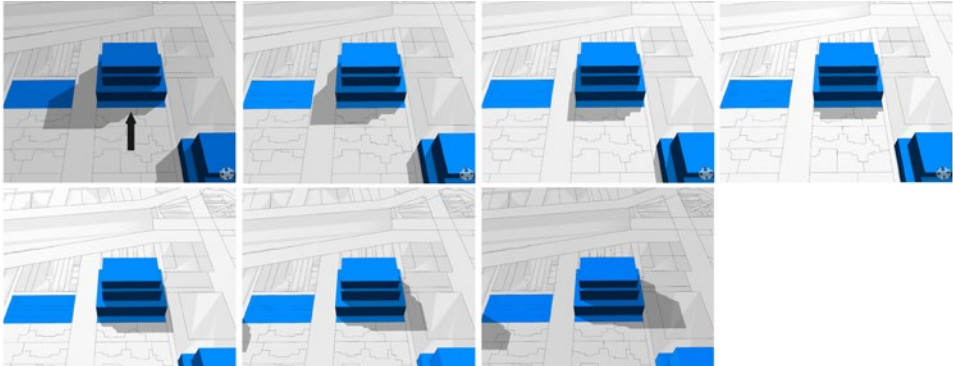
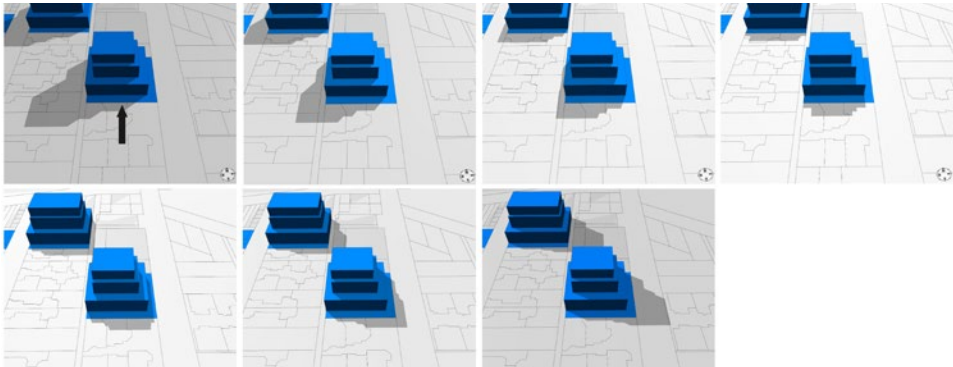
Part A1 | Blackburn Station Train and Tram Zone

Technical Assessment - Sensitive Interfaces

Ref.	Existing context	Global standards	Assessment	Testing	Recommendation
SI-1			Based on typical conditions of: - FRIN 8 storeys - Lot depth of approx. 50m - Proposed GBFC will likely be able to achieve the sensitive interface controls and provide a balanced approach of amenity protection.	9am-3pm (22 September, Spring Equinox) with sensitive interface controls at 8 storeys 	No variation recommended
SI-2			Based on typical conditions of: - Fringe 8 storeys - Lot depth of approx. 15m - Proposed heights are unlikely to be reached with a 15m wide site, irrespective of sensitive interface setback requirements.	9am-3pm (22 September, Spring Equinox) with sensitive interface controls at 8 storeys 	No variation recommended
SI-3			Based on typical conditions of: - LIMS 8 storeys - Lot depth of approx. 25-27m - Proposed GBFC will likely be able to achieve the sensitive interface controls and provide a balanced approach of amenity protection.	9am-3pm (22 September, Spring Equinox) with sensitive interface controls at 8 storeys 	No variation recommended

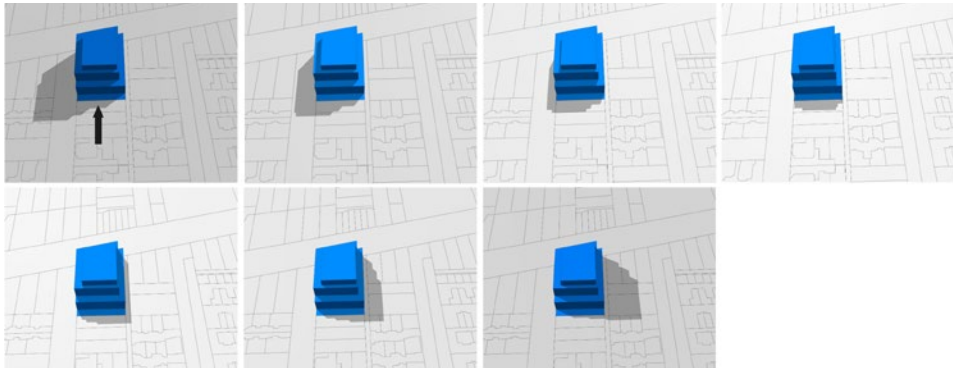
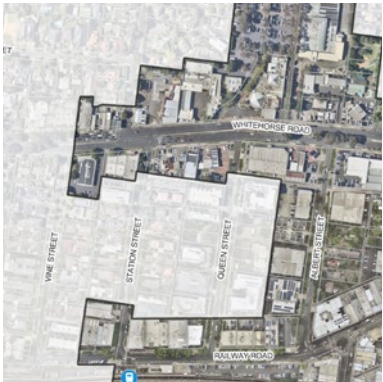
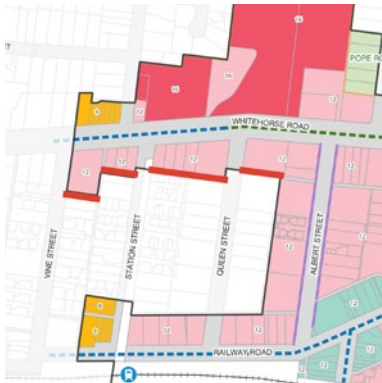
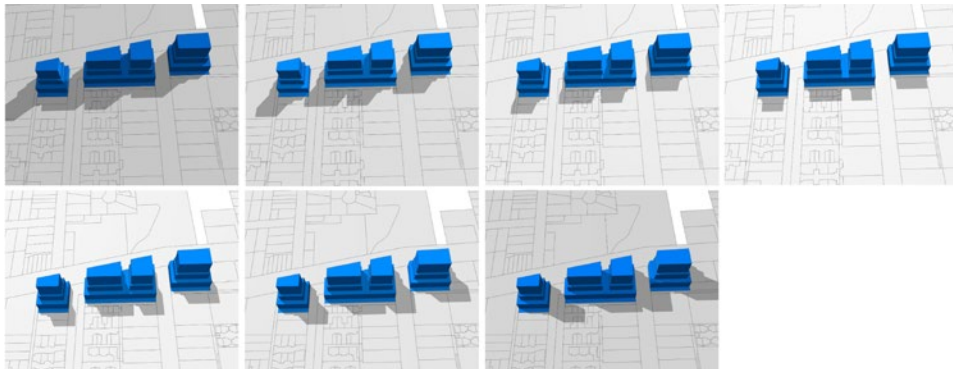
Part A1 | Blackburn Station Train and Tram Zone

Technical Assessment - Sensitive Interfaces

Ref.	Existing context	Global standards	Assessment	Testing	Recommendation
SI-4			Based on typical conditions of: - FRIN 8 storeys - Lot depth of approx. 26m (43m consolidated) - Proposed GBFC will likely be able to achieve the sensitive interface controls and provide a balanced approach of amenity protection.	9am-3pm (22 September, Spring Equinox) with sensitive interface controls at 8 storeys 	No variation recommended
SI-5			Based on typical conditions of: - Fringe 8 storeys - Lot depth of approx. 40m - Proposed heights are unlikely to be reached with a 15m wide site, irrespective of sensitive interface setback requirements.	9am-3pm (22 September, Spring Equinox) with sensitive interface controls at 8 storeys 	No variation recommended

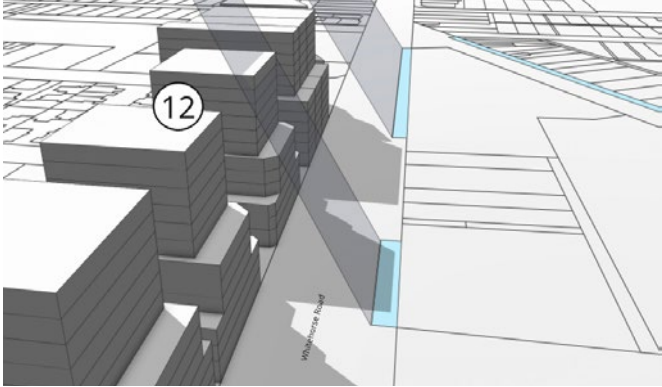
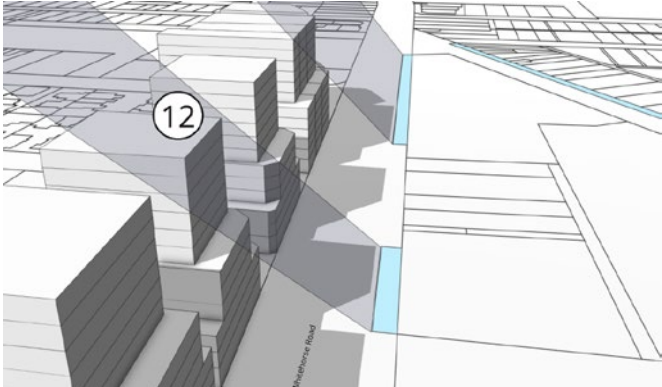
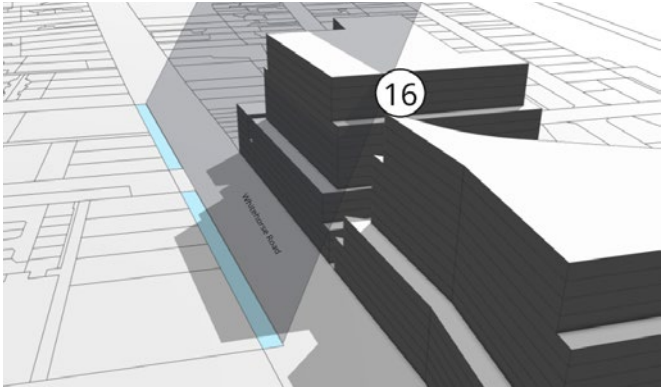
Part A1 | Blackburn Station Train and Tram Zone

Technical Assessment - Sensitive Interfaces

Ref.	Existing context	Global standards	Assessment	Testing	Recommendation
SI-6A			Based on typical conditions of: – LIMS 12 storeys – Lot depth of approx. 30m – Proposed GBFC with sensitive interface controls at 12 storeys for 102-104 Whitehorse Road, Blackburn result in a higher level of overshadowing impact to adjacent properties.	9am-3pm (22 September, Spring Equinox) with sensitive interface controls at 8 storeys (102-104 Whitehorse Road, Blackburn) 	Reduce maximum building height from 12 storeys to 8 storeys.
SI-6B			Based on typical conditions of: – LIMS 12 storeys – Lot depth of approx. 30-40m – The remaining parcels at 106-108, 110-112, 114, 118, 122-126 Whitehorse Road at 12 storeys GBFC will likely be able to accommodate the sensitive interface controls whilst balancing amenity. Additionally, the parcels immediately south of these sites have already largely been developed and are in some respects less sensitive than those south of 102-104 Whitehorse Road.	9am-3pm (22 September, Spring Equinox) with sensitive interface controls at 12 storeys 	No variation recommended

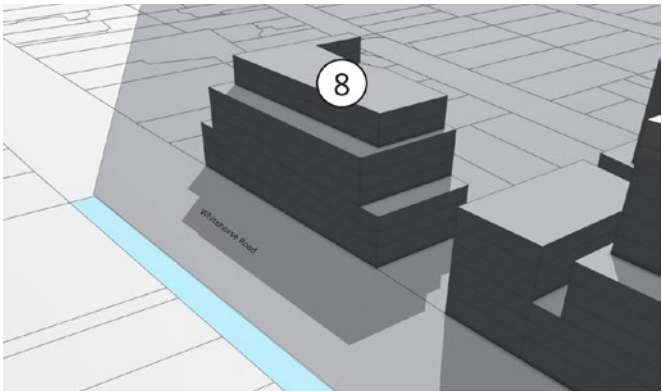
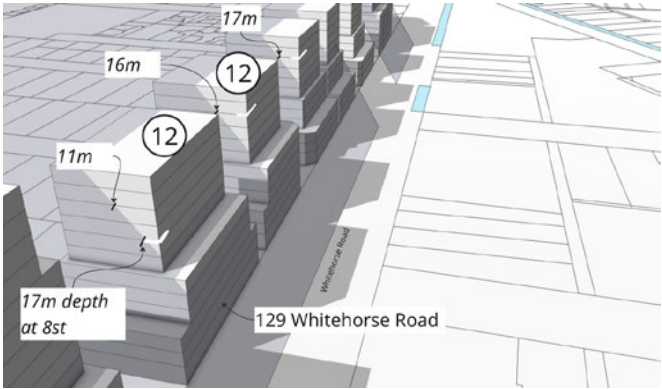
Part A1 | Blackburn Station Train and Tram Zone

Technical Assessment - Key Streets

Ref.	Existing context	Global standards	Assessment	Testing	Recommendation
KS-1.1 Whitehorse Road, Blackburn		Key pedestrian street 	– LIMS 12 storeys achieves the solar control for key streets. – The sites nominated as LIMS 12 storeys partially overshadows past the 5m offset of the opposite footpath at 10AM - however this may be able to be addressed architecturally.	Key pedestrian street solar protection plane: 10am 22 September (Spring Equinox)  Key pedestrian street solar protection plane: 2pm 22 September (Spring Equinox) 	No variation recommended.
KS-1.2 Whitehorse Road, Blackburn		Key pedestrian street 	– LOPS 16 storeys achieves the solar control for key streets. – The sites nominated as LOPS 16 storeys overshadow past the 5m offset of the opposite footpath at 10AM - however this may be able to be addressed through additional upper level setbacks as the site is sufficiently deep.	Key pedestrian street solar protection plane: 2pm 22 September (Spring Equinox) 	No variation recommended.

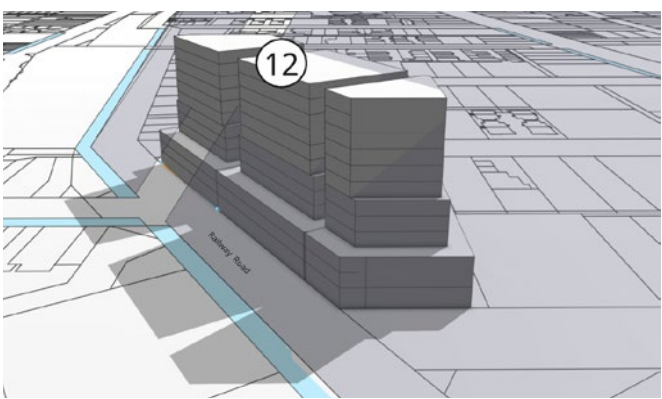
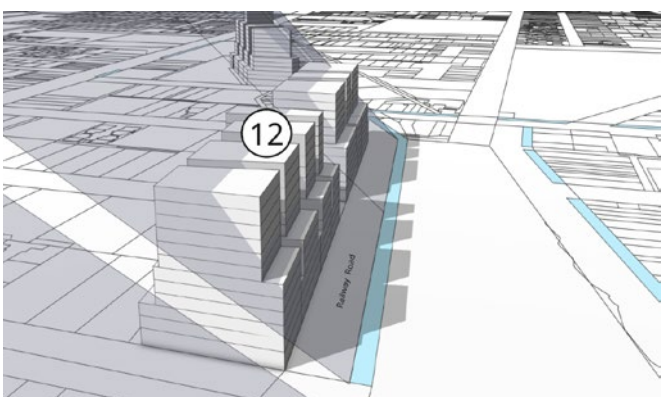
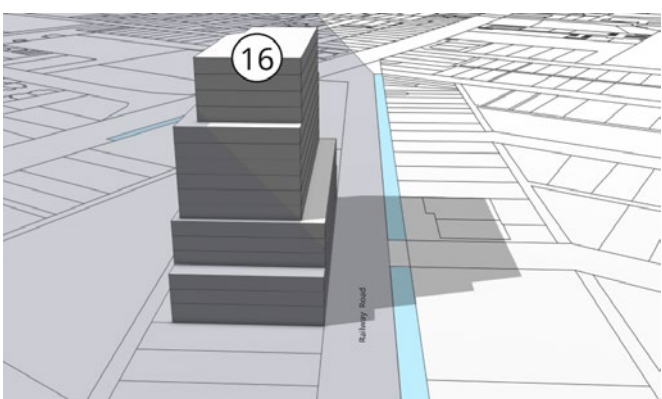
Part A1 | Blackburn Station Train and Tram Zone

Technical Assessment - Key Streets

Ref.	Existing context	Global standards	Assessment	Testing	Recommendation
KS-1.3 Whitehorse Road, Blackburn		Key pedestrian street	FRIN 8 storeys achieves the solar control for key streets.	Key pedestrian street solar protection plane: 2pm 22 September (Spring Equinox) 	No variation recommended.
KS-2 Whitehorse Road, Blackburn		Boulevard	- The sites nominated as LIMS 12 storeys will overshadow beyond the centre of the boulevard at 10am - a reduction in height may be recommended. 155-159, 161, 163, 165 Whitehorse, nominated as LIMS 12 storeys (and eastern parcels) will slightly overshadow beyond the centre of the boulevard at 10am - however this may be able to be addressed through additional upper level setbacks as the site is sufficiently deep. - The sites nominated as LOPS 16 storeys will overshadow beyond the centre of the boulevard at 2pm, however this can be managed with upper level setbacks as the site has sufficient depth.	Boulevard solar protection plane: 2pm 22 September (Spring Equinox)  	Reduce maximum building height from 12 storeys to 10 storeys.

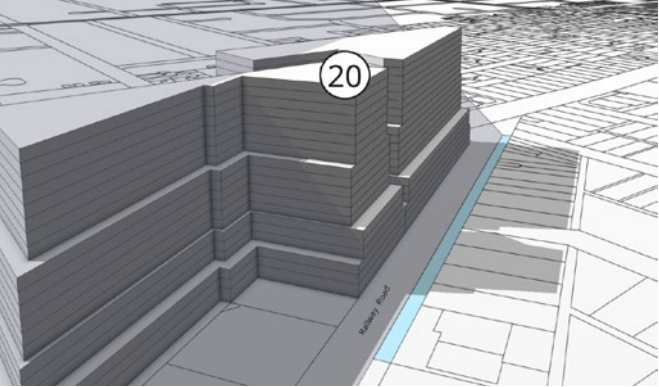
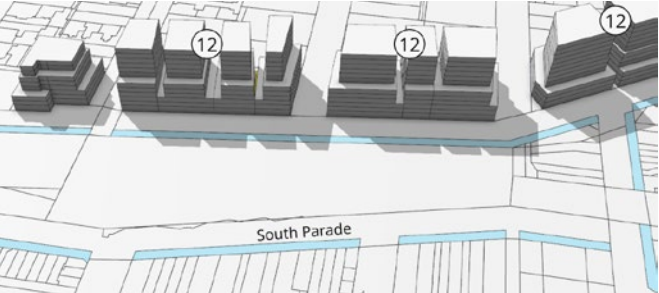
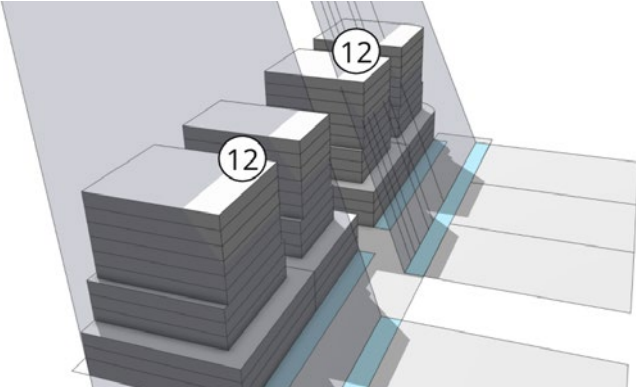
Part A1 | Blackburn Station Train and Tram Zone

Technical Assessment - Key Streets

Ref.	Existing context	Global standards	Assessment	Testing	Recommendation
KS-3.1 Railway Road, Blackburn		Key pedestrian street 	The sites nominated as NCOR 12 storeys overshadow past the 5m offset of the opposite footpath at 2pm.	Key pedestrian street solar protection plane: 2pm 22 September (Spring Equinox) 	Reduce maximum building height from 12 storeys to 8 storeys.
KS-3.2 Railway Road, Blackburn		Key pedestrian street 	The sites nominated as LIMS 12 storeys overshadow past the 5m offset of the opposite footpath at 2pm.	Key pedestrian street solar protection plane: 2pm 22 September (Spring Equinox) 	Reduce maximum building height from 12 storeys to 10 storeys.
KS-3.3 Railway Road, Blackburn		Key pedestrian street 	The sites nominated as LIMS 16 storeys overshadow past the 5m offset of the opposite footpath at 2pm.	Key pedestrian street solar protection plane: 2pm 22 September (Spring Equinox) 	Reduce maximum building height from 16 storeys to 10 storeys.

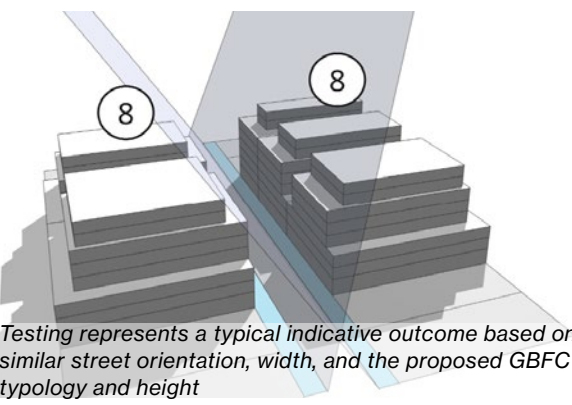
Part A1 | Blackburn Station Train and Tram Zone

Technical Assessment - Key Streets

Ref.	Existing context	Global standards	Assessment	Testing	Recommendation
KS-3.4 Railway Road, Blackburn		Key pedestrian street 	The sites nominated as LOPS (unspecified height) overshadow past the 5m offset of the opposite footpath at 2pm.	Key pedestrian street solar protection plane: 2pm 22 September (Spring Equinox) 	Reduce maximum building height from unspecified to 16 storeys.
KS-4 South Parade, Blackburn		Key pedestrian street 	South Parade will not be impacted by any built form to the north.	Key pedestrian street solar protection plane: 2pm 22 September (Spring Equinox) 	No variation recommended.
KS-5.1 Blackburn Road, Blackburn		Key pedestrian street 	Based on typical conditions of: - North-south streets 20m wide - NCOR 12 storeys on western side Proposed typologies and heights will not meet the sun access standard for key streets.	Key pedestrian street solar protection plane: 2pm 22 September (Spring Equinox) 	Reduce maximum building height from 12 storeys to 10 storeys.

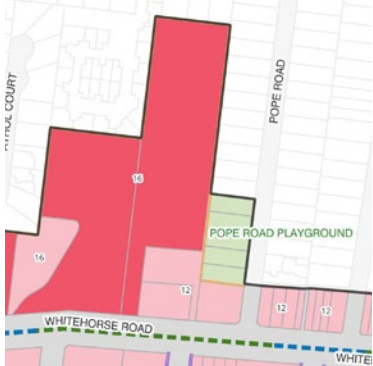
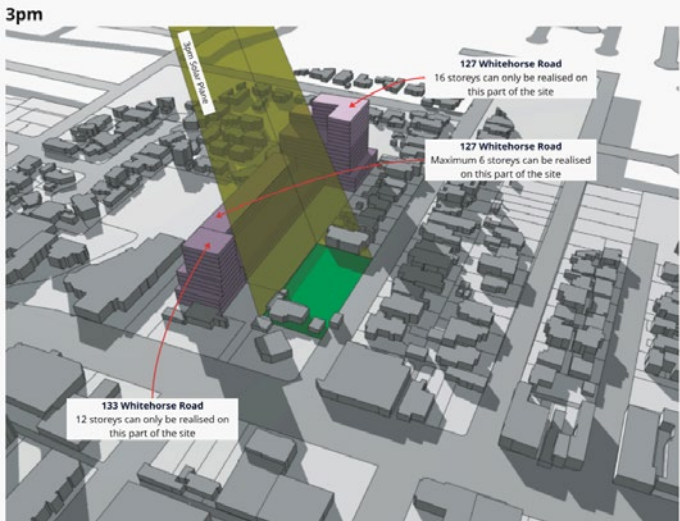
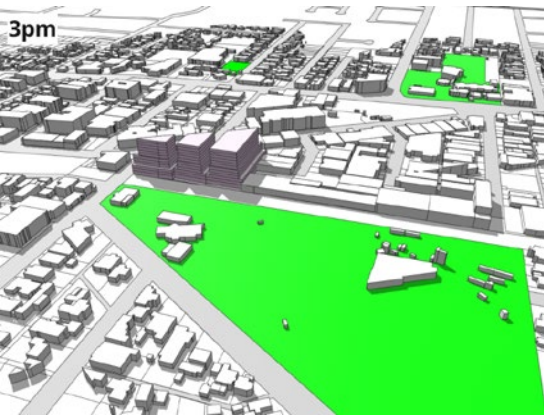
Part A1 | Blackburn Station Train and Tram Zone

Technical Assessment - Key Streets

Ref.	Existing context	Global standards	Assessment	Testing	Recommendation
KS-5.2 Blackburn Road, Blackburn		Key pedestrian street 	Based on typical conditions of: - North-south streets 20m wide - FRINGE 8 storeys on western side Proposed typologies and heights will meet the sun access standard for key streets.	Key pedestrian street solar protection plane: 10am & 2pm 22 September (Spring Equinox)  Testing represents a typical indicative outcome based on similar street orientation, width, and the proposed GBFC typology and height	No variation recommended.

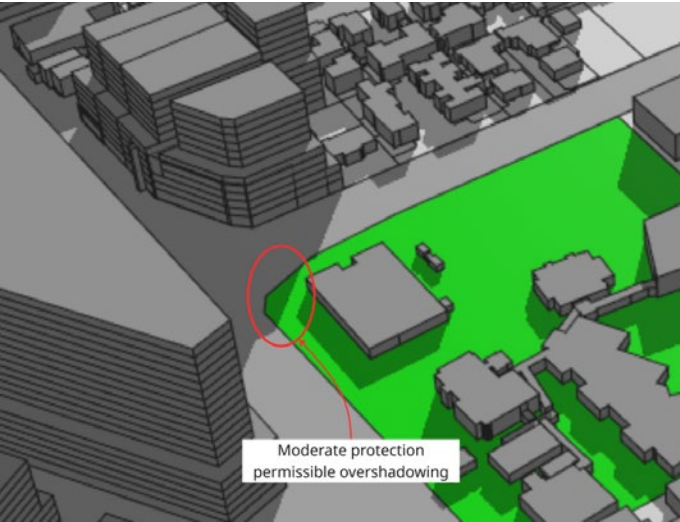
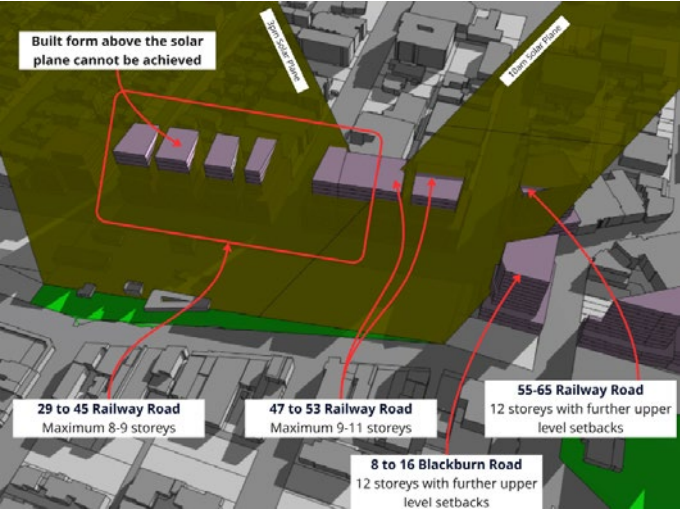
Part A1 | Blackburn Station Train and Tram Zone

Technical Assessment - Open Spaces

Ref.	Existing context	Global standards	Assessment	Testing	Recommendation
OS-1 Pope Road Playground		High protection on the winter solstice 	Retaining high protection on the winter solstice 133 Whitehorse Road: Maximum development potential can be realised with further upper level side setbacks. 127 Whitehorse Road: 3-6 storeys can be realised on the front half and 6-16 on rear half of the parcel. - Although 16 storeys can be achieved on the rear portion of 127 Whitehorse Road, a 16-storey outcome would result in significant visual bulk to adjacent residential sensitive interfaces.	High protection on the winter solstice, 21 June (3pm) - maximum development potential 	Reduce building heights of 127 Whitehorse Road from 16 to 12 storeys.
OS-2 Morton Park		High protection on the winter solstice 	Changing to high protection on the spring equinox Maximum development potential can be realised on all properties with further upper level setbacks.	High protection on the spring equinox, 22 September (10am/3pm) - maximum development potential  	Change the sun access protection level from high protection on the winter solstice to high protection on the spring equinox.

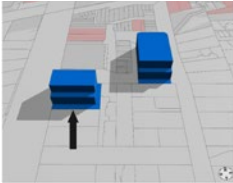
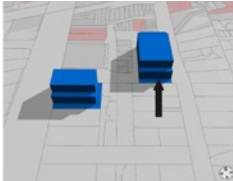
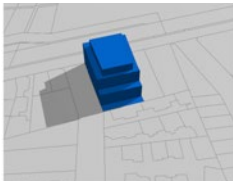
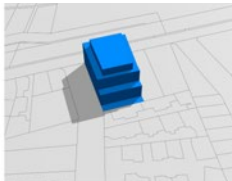
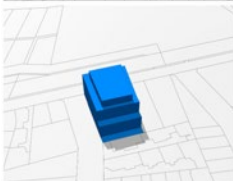
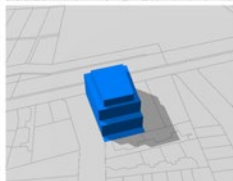
Part A1 | Blackburn Station Train and Tram Zone

Technical Assessment - Open Spaces

Ref.	Existing context	Global standards	Assessment	Testing	Recommendation
OS-3 Blackburn Primary School		Moderate protection on the winter solstice 	Retaining moderate protection on the winter solstice Maximum development potential can be realised on all properties.	Moderate protection on the winter solstice, 21 June (3pm) - maximum development potential based on street wall shadow 	No variation recommended.
OS-4 South Parade Playground		Moderate protection on the winter solstice 	Retaining moderate protection on the winter solstice 28 to 45 Railway Road: Maximum height 8-9 storeys. 47 to 53 Railway Road: Maximum height 9-11 storeys. 55-65 Railway Road and 8 to 16 Blackburn Road: Maximum development potential can be realised with further upper level setbacks.	Moderate protection on the winter solstice, 21 June (10am/3pm) - maximum development potential based on street wall shadow 	Reduce building heights from 12 to 10 storeys.

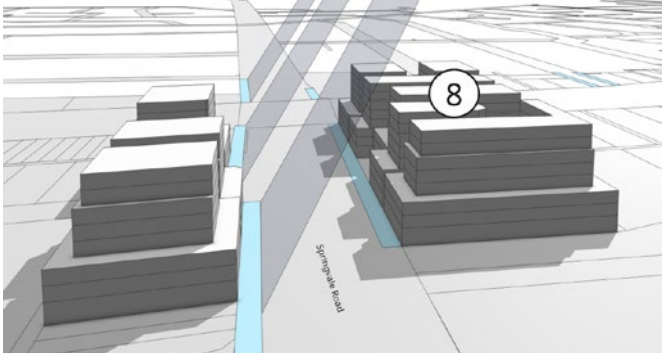
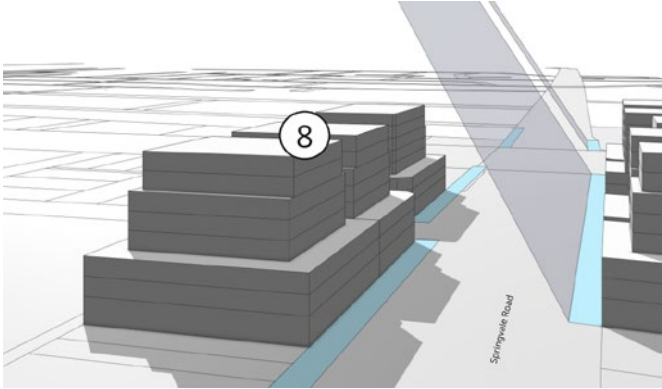
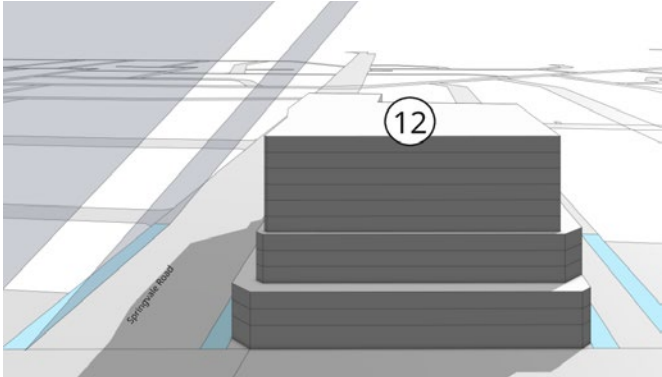
Part A2 | Nunawading Station Train and Tram Zone

Technical Assessment - Sensitive Interfaces

Ref.	Existing context	Global standards	Assessment	Testing	Recommendation
SI-7			Based on typical conditions of: - FRIN 6 storeys - Lot depth of approx. 30m - Proposed GBFC will likely be able to achieve the sensitive interface controls and provide a balanced approach of amenity protection.	9am-3pm (22 September, Spring Equinox) with sensitive interface controls at 6 storeys       	No variation recommended
SI-8			Based on typical conditions of: - FRIN 6 storeys - Lot depth of approx. 30m - Proposed GBFC will likely be able to achieve the sensitive interface controls and provide a balanced approach of amenity protection.	9am-3pm (22 September, Spring Equinox) with sensitive interface controls at 6 storeys       	No variation recommended
SI-9			Based on typical conditions of: - FRIN 6 storeys - Lot depth of approx. 30m - Proposed GBFC will likely be able to achieve the sensitive interface controls and provide a balanced approach of amenity protection.	9am-3pm (22 September, Spring Equinox) with sensitive interface controls at 6 storeys       	No variation recommended

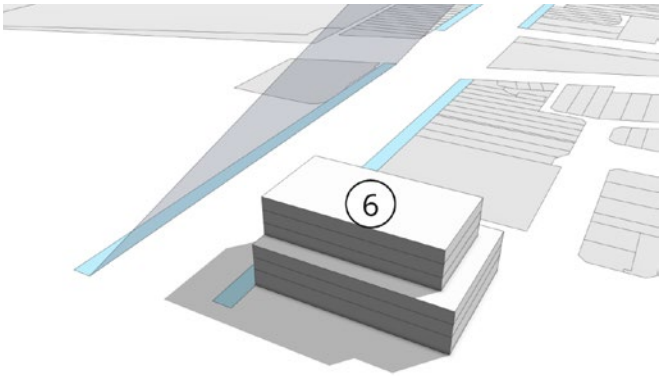
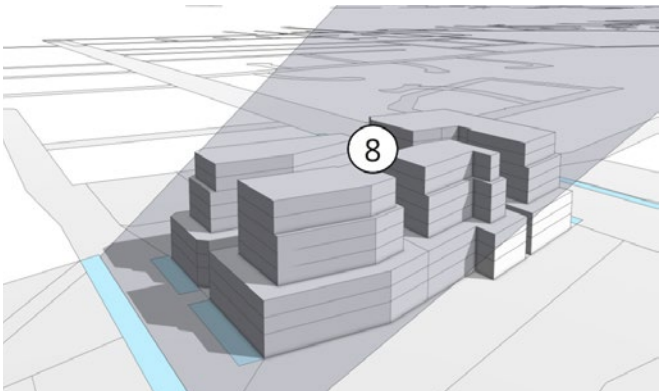
Part A2 | Nunawading Station Train and Tram Zone

Technical Assessment - Key Streets

Ref.	Existing context	Global standards	Assessment	Testing	Recommendation
KS-6.1 Springvale Road, Nunawading		Key pedestrian street 	Based on typical conditions of: - North-south streets 40m width - NCOR 8 storeys on both sides Proposed typologies and heights will meet the sun access standard for key streets.	Key pedestrian street solar protection plane: 10am 22 September (Spring Equinox)  Key pedestrian street solar protection plane: 2pm 22 September (Spring Equinox) 	No variation recommended.
KS-6.2 Springvale Road, Nunawading		Key pedestrian street 	The sites nominated as LIMS 12 storeys do not overshadow past the 5m offset of the opposite footpath at 10am.	Key pedestrian street solar protection plane: 10am 22 September (Spring Equinox) 	No variation recommended.

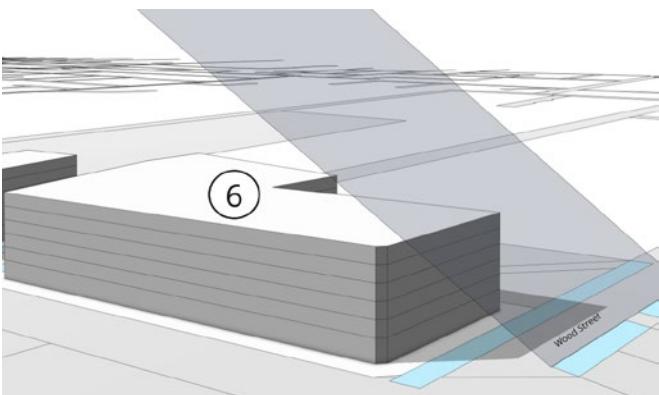
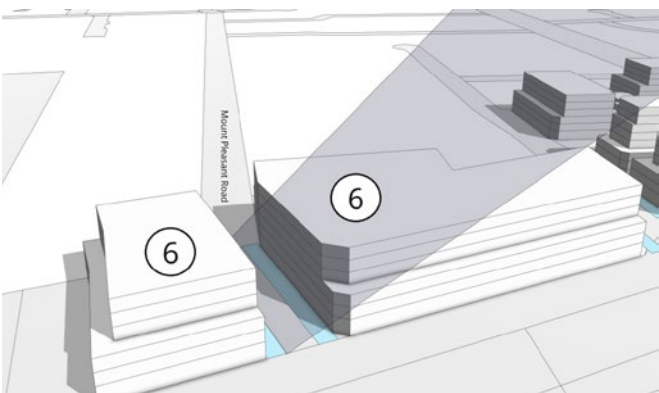
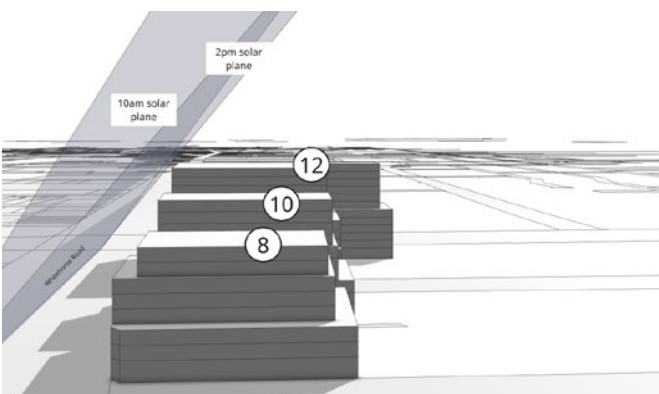
Part A2 | Nunawading Station Train and Tram Zone

Technical Assessment - Key Streets

Ref.	Existing context	Global standards	Assessment	Testing	Recommendation
KS-6.3 Springvale Road, Nunawading		Key pedestrian street 	Based on typical conditions of: - North-south streets 40m width - FRIN 6 storeys on eastern side Proposed typologies and heights will meet the sun access standard for key streets.	Key pedestrian street solar protection plane: 10am 22 September (Spring Equinox) 	No variation recommended.
KS-6.4 Springvale Road, Nunawading		Key pedestrian street 	Based on typical conditions of: - North-south streets 40m width - NCOR 12 storeys for 153-167 Springvale Road & 5 Walkers Road Proposed typologies and heights will meet the sun access standard for key streets.	Key pedestrian street solar protection plane: 10am 22 September (Spring Equinox) 	No variation recommended.
KS-7.1 Wood Street, Nunawading		Key pedestrian street 	Based on typical conditions of: - North-south streets 20m width - NCOR 8 storeys on western side Proposed typologies and heights will meet the sun access standard for key streets.	Key pedestrian street solar protection plane: 2pm 22 September (Spring Equinox) 	No variation recommended.

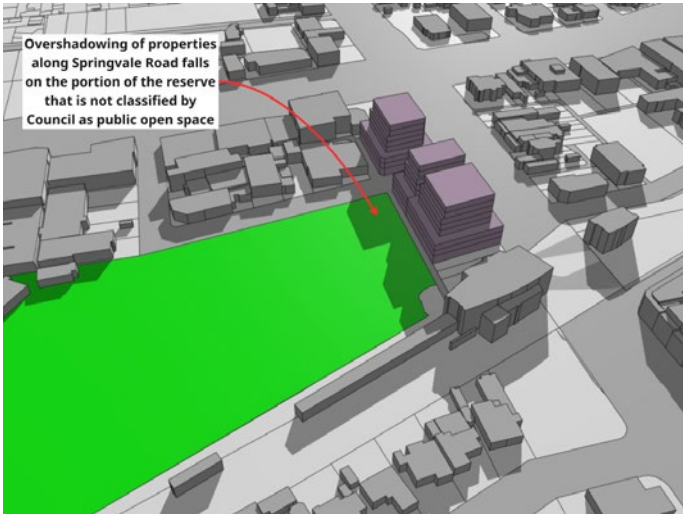
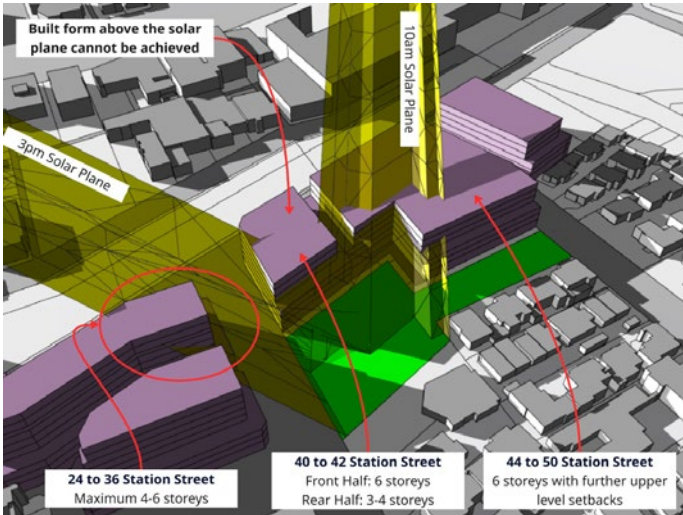
Part A2 | Nunawading Station Train and Tram Zone

Technical Assessment - Key Streets

Ref.	Existing context	Global standards	Assessment	Testing	Recommendation
KS-7.2 Wood Street, Nunawading		Key pedestrian street 	Based on typical conditions of: - North-south streets 20m width - FRIN 6 storeys on eastern side 5m landscape setbacks (not modelled) Proposed typologies and heights will meet the sun access standard for key streets.	Key pedestrian street solar protection plane: 10am 22 September (Spring Equinox) 	No variation recommended.
KS-8 Mount Pleasant Road, Nunawading		Key pedestrian street 	Based on typical conditions of: - North-south streets 18m width - FRIN 6 storeys on eastern side 5m landscape setbacks (not modelled) Proposed typologies and heights will meet the sun access standard for key streets.	Key pedestrian street solar protection plane: 10am 22 September (Spring Equinox) 	No variation recommended.
KS-9.1/9.2/9.3 Whitehorse Road, Nunawading		Boulevard 	The sites north of Whitehorse Boulevard nominated as LIMS 8, 10 and 12 storeys will not overshadow beyond the centre of the boulevard at 10am and 2pm.	Boulevard solar protection plane: 10am and 2pm 22 September (Spring Equinox) 	No variation recommended.

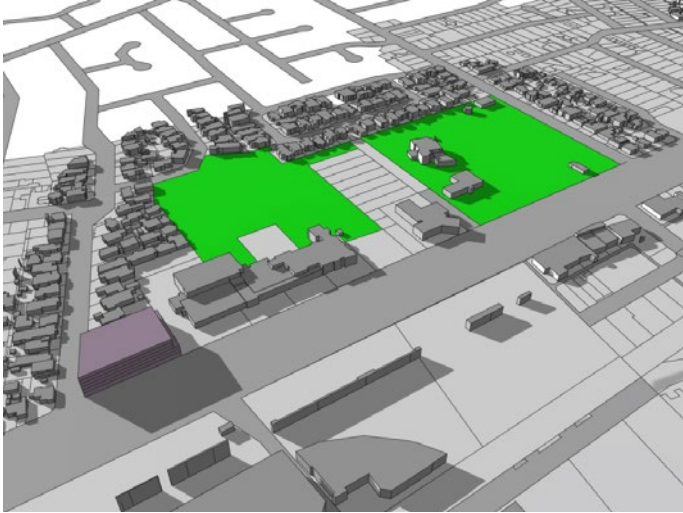
Part A2 | Nunawading Station Train and Tram Zone

Technical Assessment - Open Spaces

Ref.	Existing context	Global standards	Assessment	Testing	Recommendation
OS-5 Nunawading Reserve		High protection on the winter solstice 	Retaining high protection on the winter solstice - The eastern portion of the reserve is not classified by Council as public open space. - The western portion, which is classified as public open space, is not affected by the proposed built form typologies or building heights.	High protection on the winter solstice, 21 June (10am) - maximum development potential 	Remove the sun access control from Nunawading Reserve.
OS-6 Wood Street Reserve		High protection on the winter solstice 	Changing to moderate protection on the winter solstice 24 to 36 Station Street: Maximum height 4-6 storeys. 40 to 42 Station Street: 6 storeys can be realised on the front half of the parcel. Maximum 3-4 storeys on the rear half. 44 to 50 Station Street: Maximum development potential can be realised with further upper level setbacks.	Moderate protection on the winter solstice, 21 June (10am/3pm) - maximum development potential based on street wall shadow 	Change the sun access protection level from high to moderate protection on the winter solstice.

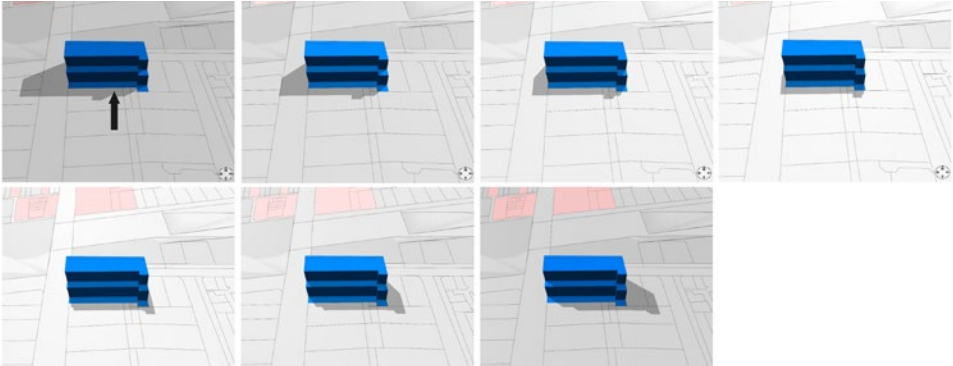
Part A2 | Nunawading Station Train and Tram Zone

Technical Assessment - Open Spaces

Ref.	Existing context	Global standards	Assessment	Testing	Recommendation
OS-7 Nangnak Garden and Walker Park		High protection on the winter solstice 	Retaining high protection on the winter solstice — Open spaces not affected by future development.	High protection on the winter solstice, 21 June (3pm) - maximum development potential 	No variation recommended.

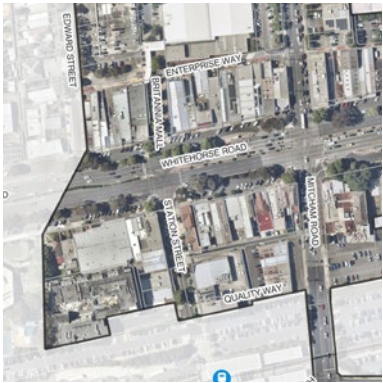
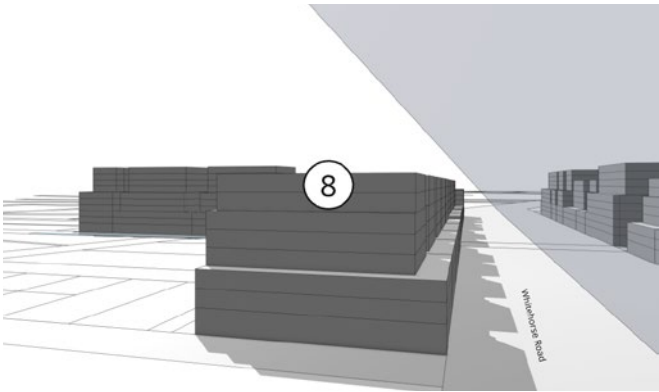
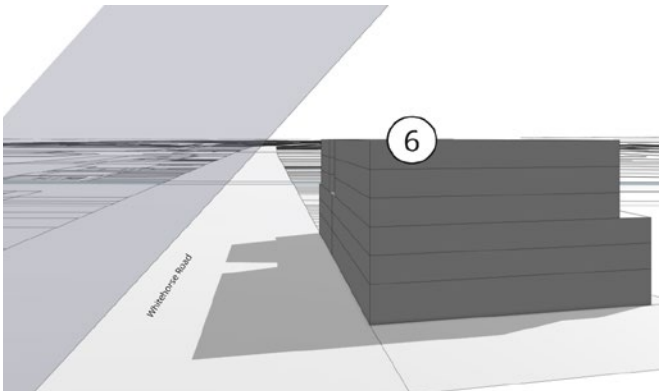
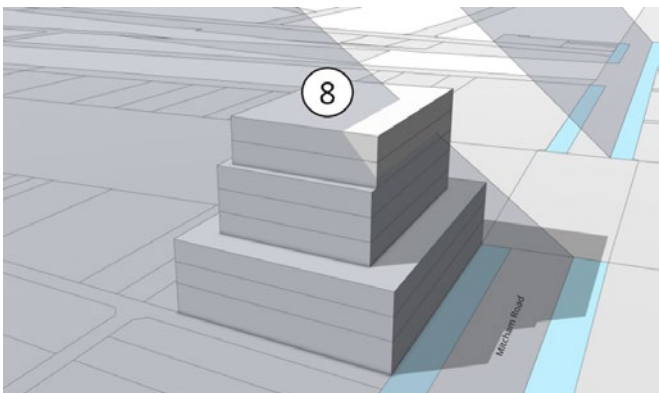
Part A3 | Mitcham Station Train and Tram Zone

Technical Assessment - Sensitive Interfaces

Ref.	Existing context	Global standards	Assessment	Testing	Recommendation
SI-10			Based on typical conditions of: - FRIN 6 storeys - Lot depth of approx. 27-30m - Proposed GBFC will likely be able to achieve the sensitive interface controls and provide a balanced approach of amenity protection.	9am-3pm (22 September, Spring Equinox) with sensitive interface controls at 6 storeys 	No variation recommended

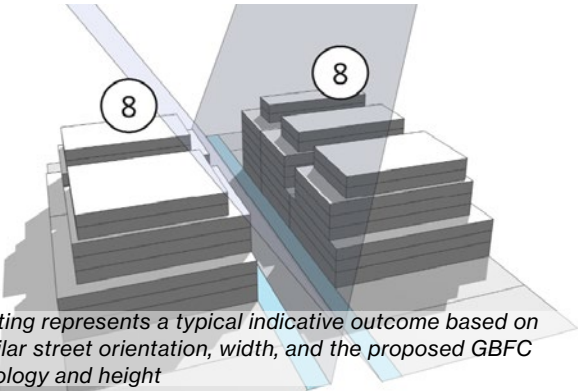
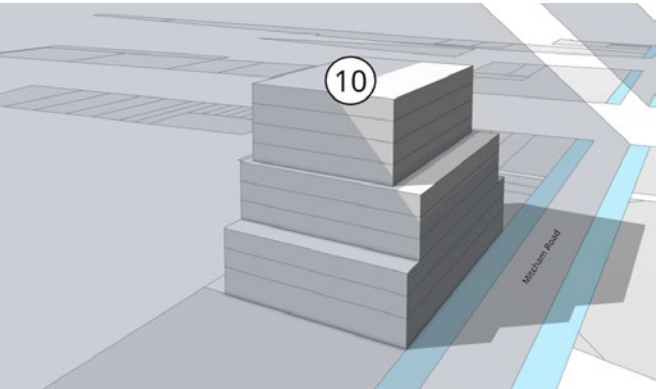
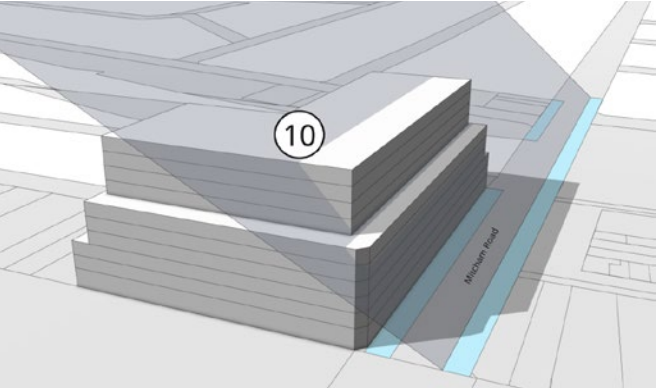
Part A3 | Mitcham Station Train and Tram Zone

Technical Assessment - Key Streets

Ref.	Existing context	Global standards	Assessment	Testing	Recommendation
KS-10.1 Whitehorse Road, Nunawading		Boulevard 	The sites north of Whitehorse Boulevard nominated as FRIN 8 storeys will not overshadow beyond the centre of the boulevard at 10am and 2pm.	Boulevard solar protection plane: 12pm 22 September (Spring Equinox) 	No variation recommended.
KS-10.2 Whitehorse Road, Nunawading		Boulevard 	The sites north of Whitehorse Boulevard nominated as FRIN 6 storeys will not overshadow beyond the centre of the boulevard at 10am and 2pm.	Boulevard solar protection plane: 12pm 22 September (Spring Equinox) 	No variation recommended.
KS-11.1 Mitcham Road, Nunawading		Key pedestrian street 	The sites nominated as NCOR 8 storeys overshadow past the 5m offset of the opposite footpath at 10am. However, this may be able to be addressed through additional upper level setbacks and/or architectural articulation.	Key pedestrian street solar protection plane: 10am 22 September (Spring Equinox) 	No variation recommended.

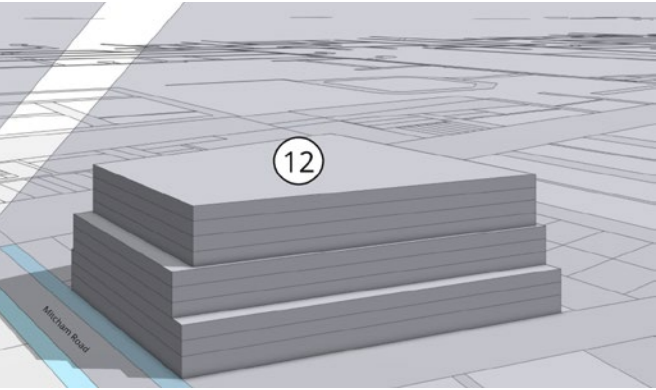
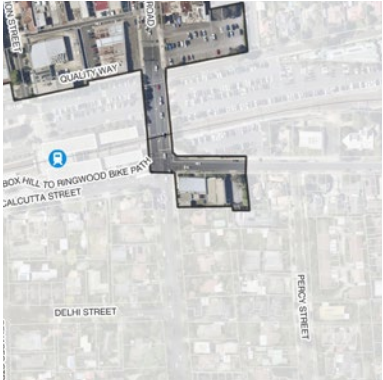
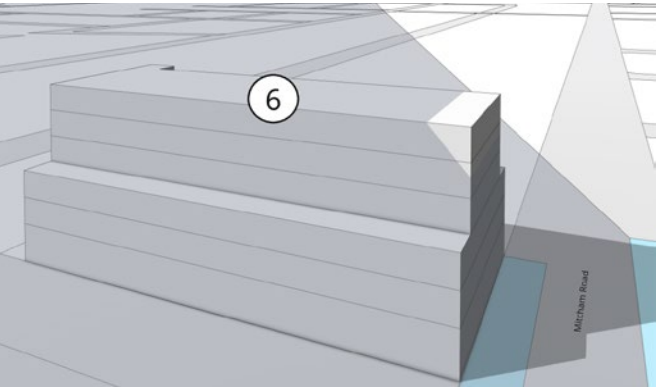
Part A3 | Mitcham Station Train and Tram Zone

Technical Assessment - Key Streets

Ref.	Existing context	Global standards	Assessment	Testing	Recommendation
KS-11.2 Mitcham Road, Nunawading		Key pedestrian street 	The sites nominated as LIMS 8 storeys overshadow past the 5m offset of the opposite footpath at 10am. However, this may be able to be addressed through additional upper level setbacks and/or architectural articulation.	Key pedestrian street solar protection plane: 10am & 2pm 22 September (Spring Equinox) 	No variation recommended.
KS-11.3 Mitcham Road, Nunawading		Key pedestrian street 	The sites nominated as LIMS 10 storeys overshadow past the 5m offset of the opposite footpath at 10am. However, this may be able to be addressed through additional upper level setbacks and/or architectural articulation.	Key pedestrian street solar protection plane: 10am 22 September (Spring Equinox) 	No variation recommended.
KS-11.4 Mitcham Road, Nunawading		Key pedestrian street 	The sites nominated as LOPS 10 storeys overshadow past the 5m offset of the opposite footpath at 10am. However, this may be able to be addressed through additional upper level setbacks and/or architectural articulation.	Key pedestrian street solar protection plane: 10am 22 September (Spring Equinox) 	No variation recommended.

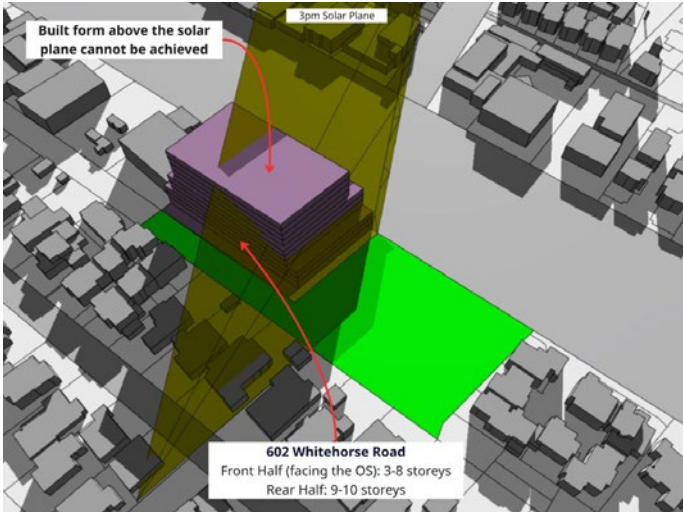
Part A3 | Mitcham Station Train and Tram Zone

Technical Assessment - Key Streets

Ref.	Existing context	Global standards	Assessment	Testing	Recommendation
KS-11.5 Mitcham Road, Nunawading		Key pedestrian street 	The sites nominated as LOPS 12 storeys do not overshadow past the 5m offset of the opposite footpath at 2pm.	Key pedestrian street solar protection plane: 2pm 22 September (Spring Equinox) 	No variation recommended.
KS-11.6 Mitcham Road, Nunawading		Key pedestrian street 	The sites nominated as FRIN 6 storeys overshadow past the 5m offset of the opposite footpath at 10am. However, this may be able to be addressed through additional upper level setbacks and/or architectural articulation.	Key pedestrian street solar protection plane: 10am 22 September (Spring Equinox) 	No variation recommended.

Part A3 | Mitcham Station Train and Tram Zone

Technical Assessment - Open Spaces

Ref.	Existing context	Global standards	Assessment	Testing	Recommendation
OS-8 Esplanade Reserve		High protection on the winter solstice 	Changing to moderate protection on the winter solstice 602 Whitehorse Road: 9-10 storeys can be realised on the rear half of the site. - Front half (facing the open space) maximum height 3-8 storeys.	Moderate protection on the winter solstice, 21 June (10am/3pm) - maximum development potential based on street wall shadow 	Change the sun access protection level from high to moderate protection on the winter solstice.

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Registrations and
Nominated Architects
ACT: Ray Brown 2528
NSW: Ray Brown 6359,
Mark van den Enden 7593,
Robert Ousey 10214,
Lawrence Toaldo 10255
NT: Architectus Australia
Pty Ltd AR750
QLD: Lawrence Toaldo 3117
SA: Architectus Australia 3426
TAS: Architectus Australia F109
VIC: Architectus Australia 51176
WA: Architectus Australia 3209,
Ray Brown 2929

**Kaurna Country
Adelaide**
Level 1, 15 Leigh Street
Adelaide SA 5000
Australia
T +61 8 8427 7300
adelaide@architectus.com.au

**Turrbul and Jagera/Yuggera Country
Brisbane**
Level 2, 79 Adelaide Street
Brisbane QLD 4000
Australia
T +61 7 3221 6077
brisbane@architectus.com.au

**Ngunnawal Country
Canberra**
Level 7, 221 London Circuit
City ACT 2601
Australia
T +61 2 8458 3500
canberra@architectus.com.au

**Yugambeh and Bundjalung Country
Gold Coast**
Level 1, 37 Connor Street
Burleigh Heads, QLD 4220
Australia
T+61 7 56193531
goldcoast@architectus.com.au

**Wurundjeri Country
Melbourne**
Level 25, 385 Bourke Street
Melbourne VIC 3000
Australia
T +61 3 9429 5733
melbourne@architectus.com.au

**Awabakal and Worimi Country
Newcastle**
Suite 101, 17 Bolton Street
Newcastle NSW 2300
Australia
T +61 2 8252 8600
newcastle@architectus.com.au

**Whadjuk Noongar Country
Perth**
QV1 Upper Plaza West
250 St. Georges Terrace
Perth WA 6000
Australia
T +61 8 9412 8355
perth@architectus.com.au

**Gadigal Country
Sydney**
Level 17, 25 Martin Place
Sydney NSW 2000
Australia
T +61 2 8252 8400
sydney@architectus.com.au

**Bindal and Wulgurukaba Country
Townsville**
Level 1, 45 Eyre Street
North Ward QLD 4810
Australia
T +61 7 4795 0200
townsville@architectus.com.au

**Tāmaki Makaurau
Auckland**
Level 2, 3-13 Shortland Street
Auckland 1010
Aotearoa New Zealand
T +64 9 307 5970
auckland@architectus.co.nz

**Ōtautahi
Christchurch**
Level 1, 152 Oxford Terrace
Christchurch 8011
Aotearoa New Zealand
T +64 3 377 7086
christchurch@architectus.co.nz

**Tauranga
Basestation**
148 Durham Street
Tauranga 3110
Aotearoa New Zealand
T +64 22 195 5893
tauranga@architectus.co.nz

**Te Whanganui-a-Tara
Wellington**
The Exchange Building
Level 1, 24 Blair Street
Wellington 6011
Aotearoa New Zealand
T +64 4 831 0583
wellington@architectus.co.nz